

MAY 07 1999

EFFECT OF LATANOPROST (L) OR 8-iso PROSTAGLANDIN E₂ (8-iso PGE₂) ALONE AND IN COMBINATION ON INTRAOCULAR PRESSURE (IOP) IN GLAUCOMATOUS (G) MONKEY EYES ((R-F Wang, S.M. Podos, J. B. Serle, Thom Mittag, F. Ventosa)) Department of Ophthalmology, The Mount Sinai School of Medicine, New York, NY.

Purpose. 8-iso PGE₂ or L reduces IOP in both normal and glaucomatous monkey eyes. The mechanism by which 8-iso PGE₂ reduces IOP appears different from L. This study evaluates the possible additivity of the effects of L and 8-iso PGE₂ on IOP in G monkey eyes. **Methods.** IOP was measured hourly for 6 hrs beginning at 9:30 a.m. on day 1 (baseline day), days 6 and 7 (single agent therapy), and days 13 and 14 (combination therapy with both agents). Following one day of baseline measurement, 4 monkeys with unilateral glaucoma received bid monotherapy with one drop of 0.005% L or 25µl of 0.1% 8-iso PGE₂ at 9:30 a.m. and 3:30 p.m. from days 2 to 7. From days 8 to 14 both agents were applied bid 5 min apart. **Results.** The maximum reduction ($p<0.05$) of IOP was 8.8 ± 1.9 (mean \pm SEM) mmHg (26%) with L alone, and was 6.5 ± 1.0 mmHg (21%) with 8-iso PGE₂ alone 2 hrs after morning dosing on day 7. A further reduction ($p<0.05$) of IOP of 4.0 ± 0.6 mmHg was produced when 8-iso PGE₂ was added to L, and of 3.0 ± 0.7 mmHg when L was added to 8-iso PGE₂ on day 13 before morning dosing. Combination therapy with both agents caused maximum IOP reductions ($p<0.05$) from baseline of 11.3 ± 3.0 mmHg (33%) (L + 8-iso PGE₂), and 9.8 ± 1.3 mmHg (31%) (8-iso PGE₂ + L). **Conclusion.** Latanoprost and 8-iso PGE₂ have an additive effect on IOP in glaucomatous monkey eyes. Support: NIH grant EY 01867 and unrestricted grant from RPB. CR: P. Cc1, Cc2.

**Abstract Forms must be received
in the ARVO Central Office
by 5:00 PM, EST, Friday,
December 4, 1998.**

ARVO Central Office
9650 Rockville Pike
Bethesda, MD 20814-3998